BEFORE THE ILLINOIS COMMERCE COMMISSION

Docket No. 12-0550

Rebuttal Testimony of Carl C. Albright, Jr.
On Behalf of AT&T Illinois

AT&T Illinois Exhibit 2.1

PUBLIC

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ISSUES
1(a), 11, 16, 17, 18

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REBUTTAL TESTIMONY OF CARL C. ALBRIGHT, JR.

ON BEHALF OF AT&T ILLINOIS

I. INTRODUCTION AND SUMMARY

Q. ARE YOU THE SAME CARL C. ALBRIGHT, JR. WHO PROVIDED DIRECT TESTIMONY ON BEHALF OF AT&T ILLINOIS IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. This testimony will rebut the direct testimony of Sprint witnesses Burt and Felton on the issues I addressed in my direct testimony. In addition, I will address the direct testimony of Staff witnesses Dr. Zolnierek and Dr. Liu on those issues.

II. ISSUES

ISSUE 1(a): Should the ICA provide for IP-to-IP interconnection or should it provide that all traffic that Sprint delivers to AT&T under the ICA must be delivered in TDM format?

ISSUE 11: Should terms and conditions regarding IP interconnection be included in the Agreement?

ISSUE 18: Should the ICA address POIs for IP-to-IP interconnection and, if so, is Sprint's proposed language just and reasonable?

Q. PLEASE RECAP WHERE AT&T ILLINOIS, SPRINT AND STAFF STAND ON THE IP INTERCONNECTION ISSUES BASED ON THE TESTIMONY FILED SO FAR.

A. In my direct testimony, I explained that AT&T Illinois opposes Sprint's proposal to include language governing IP-to-IP interconnection in the parties' ICA for two reasons.

One reason is that the interconnection requirement in section 251(c)(2) of the Telecommunications Act of 1996 does not encompass IP-to-IP interconnection; AT&T Illinois will address that legal issue, and the related policy considerations, in its briefs. The other reason is that AT&T Illinois does not have an IP network for Sprint to interconnect with. That was the main subject of my direct testimony on these issues, and it will be the main subject of my rebuttal testimony as well.

Sprint witness Burt takes a very different approach, probably because his job focuses on policy,[1] while mine focuses on technical network matters.[2] Mr. Burt's discussion of the IP interconnection issues primarily addresses legal and policy matters,[3] but he also expresses the view that AT&T Illinois provides IP interconnection to its affiliate, AT&T Corp., and so should be required to provide IP interconnection to Sprint. As I explain below, Mr. Burt's premise is mistaken; AT&T Illinois does *not* provide IP interconnection to AT&T Corp.

Staff witness Dr. Zolnierek recommends that the Commission require the parties to include provisions in the ICA that will allow either party, after the ICA has gone into effect, to "develop its own language prescribing rates, terms and conditions for IP-to-IP interconnection, including language for the transition from TDM-to-TDM to IP-to-IP interconnection, and, once completed, to petition the Commission for inclusion of its language in the Interconnection Agreement. The Commission should not, however, be

[1] Verified Written Statement of James Burt ("Burt Direct"), at 1, line 18 – 2, line 30.
[2] Direct Testimony of Carl C. Albright, Jr. ("Albright Direct") at 2, lines 24-35.
[3] Burt Direct at 16, line 355 – 30, line 658.

foreclosed from rejecting IP-to-IP interconnection if the rates, terms, and conditions that any party proposes for such interconnection are inconsistent with Commission arbitration standards."[4] Under Dr. Zolnierek's proposal, in other words, there would be no IP interconnection as of the Effective Date of the ICA, and there would be no language in the ICA spelling out terms and conditions governing IP interconnection, but there would be language allowing either party to propose terms and conditions for IP interconnection.

Q. WILL YOU BE RESPONDING TO MR. BURT'S DISCUSSION OF LAW AND POLICY IN THIS REBUTTAL TESTIMONY?

A. No. That is not my area of expertise, so I will leave that discussion for the briefs. I do, however, agree with Dr. Zolnierek's observation that "one need not be a lawyer to determine that the questions of whether IP-to-IP interconnection can and should be required pursuant to Section 251 of the Federal Telecommunication Act are currently open ones at the FCC."[5] In light of that, I reiterate that the Commission should not anticipate the FCC by doing anything that assumes the answer to any of those questions is "yes." And I also reiterate that there is no need for the Commission to delve into those questions, because – as I testified in my direct testimony and further explain in this rebuttal – it simply is not physically possible for Sprint and AT&T Illinois to establish IP-to-IP interconnection at this time, because there is no place on AT&T Illinois' network where such an interconnection can be established.

[4] Direct Testimony of Dr. James Zolnierek ("Zolnierek Direct"), at 22, lines 455-465.
[5] *Id*. at 15, lines 293-296.

Q. BEFORE YOU TALK ABOUT THAT, WHAT IS AT&T ILLINOIS' POSITION ON DR. ZOLNIEREK'S PROPOSED RESOLUTION OF ISSUES 1(a), 11 AND 18?

A. I will note below a few things that Dr. Zolnierek says about IP interconnection with which I do not agree. However, AT&T Illinois has no objection to a Commission resolution of these issues consistent with Dr. Zolnierek's proposal that I quoted above. In fact, AT&T Illinois has developed language that it believes is consistent with Dr. Zolnierek's proposal.

Although Dr. Zolnierek does not propose specific contract language, he states that "there is existing language in the proposed Interconnection Agreement that provides a good framework for my proposal."[6] He then quotes agreed section 3.11.2.1.1, which the parties developed after the arbitration petition was filed in order to resolve their disagreement over whether Sprint could send AT&T Illinois landline originated traffic. AT&T Illinois has developed a similar proposal for the IP interconnection issue, namely:

> 3.11.2.2 All traffic that Sprint delivers to AT&T Illinois pursuant to this Agreement will be delivered in TDM format.
>
> 3.11.2.2.1 This Agreement does not provide for IP-to-IP interconnection. (See section 3.11.2.2.). AT&T Illinois maintains (and Sprint acknowledges that AT&T Illinois maintains) that the interconnection duties imposed by the 1996 Act do not encompass IP-to-IP interconnection and that the Commission is without authority to establish terms for IP-to-IP interconnection. Sprint maintains (and AT&T Illinois acknowledges that Sprint maintains) that the interconnection duties imposed by the 1996 Act encompass IP-to-IP interconnection and that the Commission has authority to establish terms for IP-to-IP interconnection. The Parties have included the following section 3.11.2.2.2 in this Agreement based upon, and conditioned on Commission recognition of, their agreement that

[6] *Id*. at 14, lines 255-258.

inclusion of section 3.11.2.2.2 in the Agreement neither waives nor in any way derogates from either Party's position as set forth in this section 3.11.2.2.1.

3.11.2.2.2 After the Effective Date, Sprint may propose to AT&T Illinois that the Parties amend the Agreement to provide for IP-to-IP interconnection (and/or to permit Sprint to deliver traffic to AT&T Illinois in IP format rather than in TDM format). If, after Sprint makes such a proposal, the parties do not agree on an amendment, or that there shall be no amendment, Sprint may seek resolution of the matter by invoking Dispute Resolution pursuant to Section 12 of the General Terms and Conditions, and the Commission shall be the forum for any Formal Dispute Resolution. AT&T Illinois may contend in any Formal Dispute Resolution proceeding that the interconnection duties imposed by the 1996 Act, including but not limited to section 251(c)(2) thereof, do not govern IP-to-IP interconnection and that the Commission is without authority to establish terms and conditions for IP-to-IP interconnection for inclusion in a section 251/252 interconnection agreement. Sprint, does not agree with that contention and does not waive its right to oppose that contention, but acknowledges that AT&T Illinois has not waived its right to assert such a contention, either by agreeing to this Section 3.11.2.2.2 or by any other action or inaction.

AT&T Illinois hopes and expects that Dr. Zolnierek, having suggested that agreed section 3.11.2.1.1 provided a good framework for resolving the IP interconnection issues, will find this proposed language acceptable.

Q. BUT DR. ZOLNIEREK SAYS AT ONE POINT THAT SINCE THE ICA SHOULD ALLOW FOR THE DEVELOPMENT OF IP INTERCONNECTION LANGUAGE, THE COMMISSION SHOULD NOT REQUIRE THE PARTIES TO EXCHANGE ALL TRAFFIC IN TDM FORMAT.[7] AND YET THE FIRST THING THE LANGUAGE YOU JUST PROPOSED SAYS IS "ALL TRAFFIC THAT SPRINT DELIVERS TO AT&T ILLINOIS PURSUANT TO THIS AGREEMENT WILL BE DELIVERED IN TDM FORMAT." HOW CAN YOU EXPECT THAT TO BE ACCEPTABLE TO DR. ZOLNIEREK?

A. There is an easy answer to that question: When and if Sprint (or AT&T Illinois) drafts proposed contract language to govern IP interconnection – as Dr. Zolnierek suggests and AT&T Illinois' proposed language permits – that language would either eliminate the

[7] *Id*. at 9, lines 147-152.

sentence you have focused on, or it would make that sentence "subject to" the provisions governing IP interconnection. This is exactly the way the parties' agreed resolution of their disagreement concerning landline traffic, which Dr. Zolnierek suggested as a model, works: There is one section, 3.11.2.1, that provides that Sprint may not deliver any landline-originated traffic to AT&T Illinois, and then there is another section (the one quoted by Dr. Zolnierek) that allows the parties to negotiate language that would permit Sprint to deliver landline traffic.

Q. DR. ZOLNIEREK WOULD NOT REQUIRE THE PARTIES TO INTERCONNECT IMMEDIATELY IN IP-TO-IP FORMAT,[8] AND RECOMMENDS THAT THE COMMISSION NOT ADOPT SPRINT'S PROPOSED IP INTERCONNECTION LANGUAGE.[9] HOW DO YOU RESPOND?

A. Needless to say, AT&T Illinois agrees. The point I need to emphasize, however, is the one I tried to stress in my direct testimony: The Commission must adopt Dr. Zolnierek's recommendations in that regard, because it would be literally impossible for Sprint to establish IP-to-IP interconnection with AT&T Illinois at this time.

Q. PLEASE ELABORATE.

A. The 1996 Act requires that any interconnection that Sprint establishes with AT&T Illinois must be at a "technically feasible point within [AT&T Illinois'] network."[10] There is no

[8] *Id*. at 11, lines 195-200.
[9] *Id*. at 13, lines 235-239.
[10] 47 U.S.C. §251(c)(2)(B). *See* my direct testimony at 16, line 419 – 17, line 428. *See also* Zolnierek Direct at 13, lines 228-233.

point within AT&T Illinois' network at which Sprint could possibly establish an IP-to-IP interconnection.

Q. DOES SPRINT CONTEND OTHERWISE?

A. So far, no. In fact, Sprint's proposed IP interconnection language includes proposed points of interconnection, but none of those points is on AT&T Illinois' network, as I have explained.[11] Dr. Zolnierek agrees.[12]

Q. HAS DR. ZOLNIEREK IDENTIFIED ANY POINTS ON AT&T ILLINOIS' NETWORK AT WHICH THE PARTIES MIGHT ESTABLISH IP-TO-IP INTERCONNECTION?

A. No. Staff responded as follows to a data request on this subject: "Dr. Zolnierek does not know whether there are or are not any technically feasible point(s) on AT&T Illinois' network at which Sprint could establish IP-to-IP interconnection of the type necessary and appropriate to exchange traffic pursuant to the Interconnection Agreement at issue in this proceeding.[13]

Q. ARE YOU ABLE TO TESTIFY WITHOUT RESERVATION THAT THERE IS NO POINT ON AT&T ILLINOIS' NETWORK AT WHICH SPRINT COULD ESTABLISH IP-TO-IP INTERCONNECTION?

A. Yes. There has been some suggestion in this case that because AT&T Illinois has retail U-Verse customers who originate or terminate VoIP calls in IP format, it must be

[11] Albright Direct at 17, line 430 – 18, line 439.
[12] Zolnierek Direct at 12, line 225 – 13, line 13.
[13] *See* Schedule CCA-7.

technically feasible for AT&T Illinois to provide IP-to-IP interconnection with Sprint. That is not the case.

In my direct testimony, I described the equipment and facilities used for providing U-Verse VoIP service, with reference to a diagram, Schedule CCA-1.[14] I then explained that Sprint could not establish IP interconnection at two of the pieces of equipment in that diagram, the residential gateway and the IP DSLAM.[15]

After my direct testimony was filed, Staff served AT&T Illinois with a data request that asked about a third piece of equipment. Staff asked, "Please explain whether it would be technically feasible to connect AT&T Illinois' Video Hub Office ("VHO") to Sprint's network as AT&T Illinois currently connects its VHO to AT&T Corp."[16] Based on this question, it appears Staff may have been thinking that AT&T Illinois had established IP interconnection with AT&T Corp., in which case, Staff perhaps thought, AT&T Illinois could establish IP interconnection with Sprint in the same way.

AT&T Illinois' response to Staff's data request, for which I was responsible, explained that it would *not* be technically feasible to connect AT&T Illinois' VHO to Sprint's network.[17] And I now reaffirm that that data request response was true and accurate, and should be taken as part of my testimony.

[14] Albright Direct at 8, line 203 – 9, line 218.
[15] *Id*. at 9, line 220 – 10, line
[16] *See* Schedule CCA-8, attached hereto.
[17] *Id*.

In short, Sprint has not suggested that there is any point on AT&T Illinois network at which Sprint could establish IP interconnection; Staff's latest word on the subject is that it does not know of any point on AT&T Illinois' network at which Sprint could establish IP interconnection; and I have explained in detail that there is no point on AT&T Illinois' network. Thus, as I testified in my direct testimony, Sprint's ICA cannot include language that would require IP interconnection at this time.

Q. SPRINT WITNESS BURT SAYS THAT AT&T ILLINOIS AND AT&T CORP. HAVE IP-TO-IP INTERCONNECTION.[18] IS THAT CORRECT?

A. No. And before I explain why I say that AT&T Illinois and AT&T Corp. do not have IP-to-IP interconnection even though they do have a connection of sorts (in the generic, non-telecommunications sense of that word), note that this question is very closely tied to two things I just explained – namely, (1) that there is no point on AT&T Illinois' network at which Sprint could establish IP interconnection, and, in particular, (2) it would not be technically feasible to connect AT&T Illinois' VHO to Sprint's network. The tie is this: If AT&T Illinois and AT&T Corp. did have an IP interconnection, then it would be possible for Sprint to establish at IP interconnection in the same manner as AT&T Corp. But AT&T Illinois and AT&T Corp. do not have IP interconnection in the section 251(c)(2) sense of that word.

[18] Burt Direct at 31, lines 691-694.

"Interconnection" under section 251(c)(2) is the linking of two networks for the mutual exchange of traffic and is between the switches of the two carriers. There is no such interconnection between AT&T Corp. and AT&T Illinois at the IP level. The U-verse network functions as backhaul from the AT&T Illinois end user, across the AT&T Illinois network to the AT&T Corp. switch for call processing and routing. This is much like the backhaul Sprint uses from its cell sites across facilities leased from the AT&T network and delivered back to the Sprint switch for call processing and routing.

Any interconnection between AT&T Illinois and AT&T Corp. would be at the TDM-to-TDM level and would occur after the AT&T Corp. IP switch has processed the VoIP originated call and determined the need to route that call to the PSTN, at which time AT&T Corp. would then perform the necessary protocol conversion from IP-to-TDM for delivery to AT&T Illinois via the TDM interconnection as shown in Exhibit CCA-9, identified as point seven (7) on the diagram.

The backhaul of the IP stream to/from the end user over the U-verse network to the AT&T Corp. IP switch does not terminate, connect to, or in any way interconnect with an AT&T Illinois switch prior to handoff to the AT&T Corp. switch. This was clearly shown in Exhibit CCA-1. I will walk through the diagram and explain each component. For reference, please see Exhibit CCA-9, which is the same as CCA-1, but revised to include corresponding numbers to the walk-through below.

1) Starting at the customer premise, the 2-Wire RG is the Residential Gateway ("RG") that manages the data stream for video, internet and VoIP.

2) From the RG, the data stream travels to the FTTN, which is the IP DSLAM that aggregates/disaggregates all end user data for transport to/from the end user premise (much like a multiplexer). This is located at the SAI (Service Access Interface) that serves the neighborhood. This is part of the local loop behind the Central Office (CO).

3) The ALU 7450 at the CO functions like a multiplexer that aggregates/disaggregates traffic destined to/from the various U-verse neighborhoods that are behind that CO.

4) The ALU 7750 at the Intermediate Office (IO) also functions like a multiplexer that aggregates/disaggregates traffic destined to/from the various COs that are behind the IO.

5) The ALU 7750 at the VHO also functions like a multiplexer in that it aggregates/disaggregates the video signal, received via satellite and the IP data stream, received from AT&T Corp. for transport to/from the various IOs that are served by the VHO.

6) Special access facilities provide transport from the VHO to the AT&T Corp. IP switching platform, which performs the IP data management, including internet routing as well as VoIP call processing and routing.

7) If the VoIP call is destined for an AT&T Illinois end user, or another TDM-based end user on the PSTN, AT&T Corp. converts the VoIP call to TDM using a protocol converter and routes the call over different access facilities to the appropriate PSTN switch according to the LERG, whether that is an AT&T Illinois switch, or the switch of another carrier with which AT&T Corp. has an interconnection agreement. This is the actual interconnection between AT&T Corp. and AT&T Illinois as depicted in the diagram, but it also could be an interconnection point to other PSTN switches with which AT&T Corp. may have an interconnection agreement.

If the incoming VoIP call is destined for another VoIP user on the U-verse network, the AT&T Corp. switch routes the call back over the same path destined for the appropriate U-verse VoIP customer. This is similar to how Sprint would route a call from one Sprint PCS user to another Sprint PCS user and AT&T Illinois would not even be aware of the call occurrence.

This is exactly how backhaul is performed for a carrier from its end users to that carrier's switch, at which point the call is processed and routed accordingly, whether back to the PSTN or to another of its own end user customers.

Q. IF SPRINT AND AT&T ILLINOIS HAVE NO IP-TO-IP INTERCONNECTION AND IF SPRINT HAS IP TRAFFIC THAT IT WANTS TO DELIVER TO AT&T

ILLINOIS, SPRINT WOULD HAVE TO CONVERT ITS IP TRAFFIC TO TDM BEFORE IT HANDS THE TRAFFIC TO AT&T ILLINOIS, CORRECT?

A. Yes.

Q. SPRINT WITNESS BURT COMPLAINS THAT THIS WOULD FORCE SPRINT TO PAY FOR EQUIPMENT THAT WOULD BE NEEDED IN ORDER TO MAKE THE CONVERSION.[19] HOW DO YOU RESPOND?

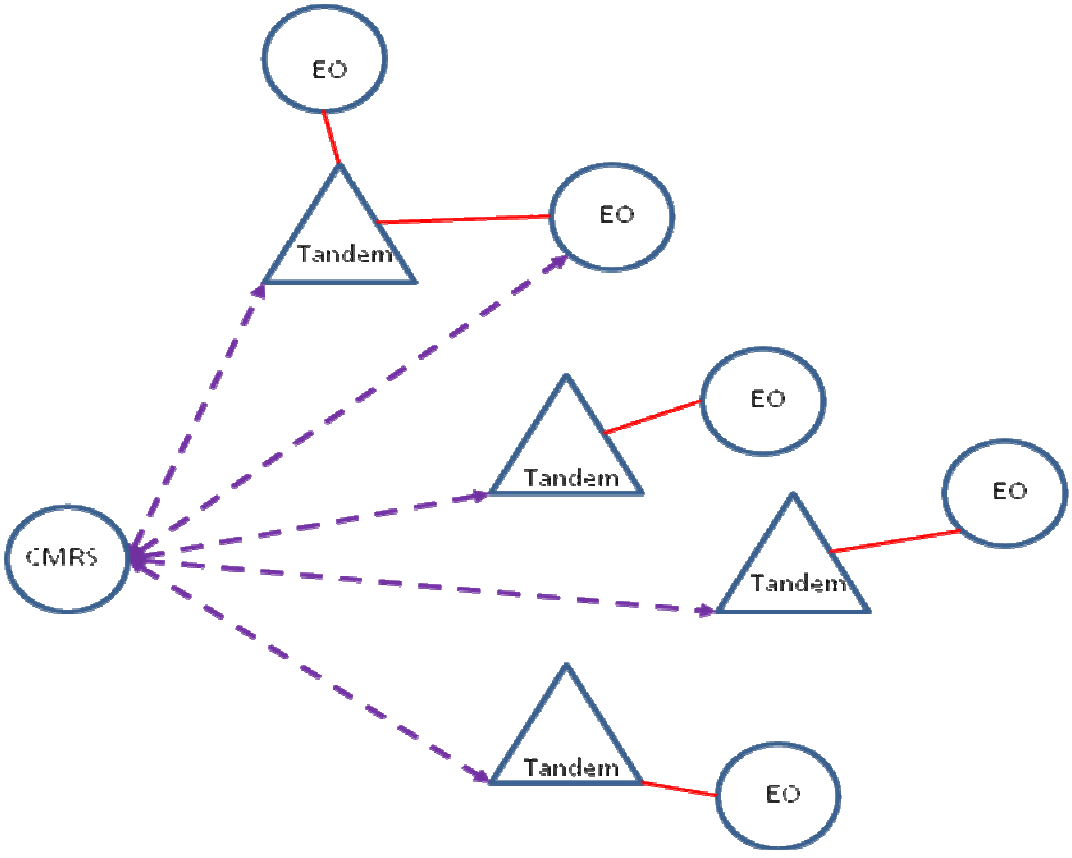
A. First, I would note that Mr. Burt makes this point in support of his argument that the ICA should provide for IP-to-IP interconnection. Once one accepts that there is not going to be IP-to-IP interconnection when this ICA goes into effect (as I have explained there cannot be and as Dr. Zolnierek concludes there should not be), then it is simply an unavoidable fact of life that if Sprint has IP traffic to deliver to AT&T Illinois, it is going to have to convert the traffic to TDM. The only alternative would be for AT&T Illinois to bear the cost of the conversion of Sprint's traffic to TDM, and that is not a plausible alternative.

Q. WHY NOT?

A. In the first place, because it is Sprint's traffic. If Sprint chooses to carry IP traffic on its network, then until such time as AT&T Illinois has an IP network with which Sprint can establish interconnection, the costs Sprint incurs to convert its IP traffic to TDM is a Sprint cost of doing business.

[19] Burt Direct at 20, line 423.

Second, it costs Sprint much less to take care of the necessary conversion than it would cost AT&T Illinois. This is because Sprint would only be required to place IP-to-TDM conversion equipment at one point in front of its switch, while if AT&T Illinois were required to perform the conversations, AT&T Illinois would have to install conversion equipment at each tandem or end office where interconnection trunks between the parties are established. The diagram below demonstrates this.



Q. DR. ZOLNIEREK STATES, "UNDER AT&T ILLINOIS' PROPOSAL, IF BOTH PARTIES ARE USING IP FORMAT, THEN BOTH PARTIES WOULD NEED TO CONVERT THEIR TRAFFIC TO TDM FORMAT PRIOR TO DELIVERING IT TO ONE ANOTHER. EACH PARTY WOULD THEN NEED TO CONVERT

BACK TO IP FORMAT FOR TRANSMISSION WITHIN THEIR OWN IP NETWORKS."[20] HOW DO YOU RESPOND?

A. As I understand it, Dr. Zolnierek is talking about a hypothetical situation in the future, where Sprint and AT&T Illinois are operating under the ICA in the form that AT&T Illinois is proposing – where Sprint has to deliver traffic to AT&T Illinois in TDM format – but where Sprint is carrying traffic in its network in IP format and AT&T Illinois is doing the same. In this scenario, I believe Dr. Zolnierek is suggesting it would be silly for Sprint to be required to convert its traffic to TDM in order to comply with the ICA only to have AT&T Illinois convert the traffic back to IP, which AT&T Illinois would have to do because it is running an IP network. That would indeed be wasteful. But in the hypothetical future that Dr. Zolnierek is talking about, I am confident that Sprint and AT&T Illinois would agree to trade traffic in IP format, because that would be in both parties' interest. And, of course, the language that AT&T Illinois has proposed in order to implement Dr. Zolnierek's conceptual proposal would pave the way for the parties to do so. The Commission need not be concerned that AT&T Illinois will insist on exchanging traffic in TDM format if AT&T Illinois is carrying its traffic in IP format.

Q. PLEASE SUMMARIZE AT&T ILLINOIS' POSITION ON ISSUES 1(A), 11 AND 18.

A. For reasons that will be set forth in AT&T Illinois legal briefs, the 1996 Act does not require AT&T Illinois to provide IP interconnection to Sprint. However, the Commission need not address that legal question, and it should not unnecessarily decide the question,

[20] Zolnierek Direct at 7, lines 104-107.

because the FCC is in the process of doing so. Unless and until AT&T Illinois acquires IP network equipment with which it is technically feasible for Sprint to interconnect its IP equipment, there can be no IP-to-IP interconnection. Accordingly, the Commission should reject all of Sprint's proposed language for Issues 1(a), 11 and 18. In addition, the Commission should either adopt AT&T Illinois' proposed GTC section 3.11.2.1, which provides that all traffic Sprint delivers to AT&T Illinois will be delivered in TDM format,[21] or should adopt the language set forth above at lines 91-122, which implements Dr. Zolnierek's proposal.

ISSUE 16: Must Sprint obtain AT&T's consent to Sprint's removal of a previously established POI?

Q. DO YOU AGREE WITH DR. LIU THAT SPRINT SHOULD NOT BE ALLOWED SOLE DISCRETION TO DECOMMISSION ITS POI ARCHITECTURE TO A SINGLE POI? [22]

A. Yes, I agree with both the reasoning and the conclusion of Dr. Liu on this issue. In particular, I agree that the Parties have a multiple-POI interconnection architecture that takes into account the economic interests of both parties, that reduces the likelihood of network failure, and that protects the AT&T Illinois network from adverse impacts of congestion and the potential for network and tandem exhaust.[23] I also agree that there is no reason for the Commission to depart from its well-established precedent that a carrier "shall not be allowed to dismantle any established interconnection arrangement unless it

[21] *See* Albright Direct at 7, lines 164-167.
[22] Dr. Liu Direct at page 25, line 603.
[23] Dr. Liu Direct at page 33, line 792; Albright Direct at pages 20-21.

either reaches an agreement with its interconnection partner, or receives commission approval based upon sufficient justification."[24]

Q. SPRINT WITNESS MR. FELTON TESTIFIES THAT SPRINT SHOULD HAVE SOLE DISCRETION TO DECOMMISSION ITS EXISTING ARRANGEMENT BASED ON THE "SINGLE POI" RULE. DO YOU AGREE?

A. No. There is a big difference between establishing a single POI in a LATA in the first place (by constructing just one interconnection) and decommissioning established POIs in order to end up with a single POI. In the first situation, I agree that a new entrant has the ability to begin operations by establishing a single POI in a LATA. (Of course, as its traffic volume grows, good engineering practice would dictate that it establish additional POIs.) In the second situation, a carrier should not be permitted to unilaterally decommission POIs that both parties have paid to establish. Mr. Felton's analysis does not acknowledge the fundamental difference between these two situations.

Q. MR. FELTON ALSO SAYS THAT THE COMMISISON'S PRECEDENT IN THE MCI ARBITRATION DOES NOT CONTROL IN THIS CASE. HOW DO YOU RESPOND?

A. Mr. Felton argues that the Commission's November 30, 2004 order in the MCI Arbitration case applies only to a "specially constructed fiber meet point POI".[25] I disagree. While the interpretation of Commission orders is a matter for the lawyers, I do not see anything in that order that limits the ruling in that way. The key sentence in the order reads as follows: "The Commission concurs with SBC and Staff, however, that,

[24] *MCI Arbitration Decision*, ICC Docket No. 04-0469, at 88-89.
[25] Felton Direct at 26, line 559-564.

where MCI already established multiple POIs in a LATA, it shall not decommission them in its sole discretion."[26] The rest of the paragraph discusses fiber meet POIs. But that discussion refers to fiber meet POIs as an "example" of how carriers can incur time and expense to establish a POI. I see no wording that limits the ruling to fiber meets.

Q. WHAT DOES STAFF WITNESS DR. LIU SAY ABOUT MR. FELTON'S ATTEMPT TO DISTINGUISH THE MCI ARBITRATION ORDER?

A. Dr. Liu does not agree with Mr. Felton on this point. Rather, she reads the Commission precedent the same way I do, *i.e.*, that the rule against unilateral decommissioning applies to all types of POIs, not just fiber meet POIs.[27]

Q. IS THERE ANOTHER REASON THAT SPRINT SHOULD NOT BE ALLOWED TO GO TO A SINGLE POI ARRANGEMENT?

A. Yes. In this agreement, Sprint and AT&T Illinois have agreed to a bill-and-keep compensation arrangement for non-access traffic, so they will be exchanging that traffic without charging one another. Mr. Felton's suggestion that Sprint should be able to unilaterally decommission existing POIs would necessarily shift Sprint's transport costs onto AT&T Illinois, at a time when AT&T Illinois has no means to recover those costs.

Q. HOW SHOULD THE COMMISSION RESOLVE ISSUE 16?

A. I recommend that the commission adopt the position of Staff and AT&T Illinois and, in doing so, reject Sprint's proposed language for Attachment 2, section 2.2.1.4.

[26] *MCI Arbitration Decision* at 88.
[27] Dr. Liu Direct at page 22, lines 535-551.

ISSUE 17(a) Should Sprint be required to establish additional Points of Interconnection (POIs) when its traffic to an AT&T Tandem Serving Area exceeds 24 DS1s?

ISSUE 17(b) Should Sprint be required to establish an additional Points of Interconnection (POI) at an AT&T end office not served by an AT&T tandem when its traffic to that end office exceeds 24 DS1s?

ISSUE 17(c) Should Sprint establish these additional connections within 90 days?

Q. WHAT IS SPRINT'S POSITION ON ESTABLISHING ADDITIONAL POIS?

A. Mr. Felton argues that a requesting carrier cannot be required to establish more than one POI per LATA.[28]

Q. IS THERE COMMISSION PRECEDENT THAT UNDERCUTS THAT ARGUMENT?

A. Yes. In the Level 3 Arbitration, the Commission recognized that at some traffic level it is reasonable for interconnected carriers to establish an additional POI.[29] Dr. Liu agrees that the Level 3 Arbitration precedent applies here and that the parties should be required to establish an additional POI once traffic between them reaches some pre-determined threshold.[30]

Q. WHAT IS THE TRAFFIC THRESHOLD THAT DR. LIU RECOMMENDS?

[28] Felton Direct at page 29, lines 611-614.
[29] *Level 3 Arbitration Order*, ICC Docket No. 00-0332 at 31.
[30] Dr. Liu Direct at page 29-30, lines 718-728.

A. Dr. Liu recommends a traffic threshold of an OC-12. Under that standard, a carrier would not have to establish an additional POI with AT&T Illinois until traffic reached the level of 336 DS-1s, or 8064 trunks, to a tandem serving area separate from the existing POI arrangement for 3 consecutive months. Dr. Liu did not arrive at the OC-12 threshold independently. Rather, she drew her recommendation from the threshold established by the Commission in the Level 3 Arbitration Order. My understanding is that she did not believe that she had a reason to depart from that precedent because "AT&T has not presented sufficient evidence to warrant a departure from that Commission finding or warrant the decrease of traffic threshold from OC-12 (or 336 DS1s) to 24 DS1s for additional POIs."[31]

Q. WHAT IS A TANDEM SERVING AREA?

A. It is the geographic area served by an AT&T Illinois tandem switch.

Q. HOW MANY AT&T ILLINOIS TANDEM SWITCHES ARE THERE IN LATA 358?

A. Thirteen.

Q. WHAT TRAFFIC VOLUME WOULD BE REQUIRED TO REACH THE THRESHOLD OF AN OC-12 NECESSARY TO ESTABLISH AN ADDITIONAL POI?

A. AT&T Illinois Trunk Planning guideline for a DS-1 traffic threshold is 200,000 minutes of use (MOU) per month. Using this threshold, a carrier would not be required to

[31] *Id*. at 33, line 797.

establish an additional POI at the OC-12 level until that carrier exceeded 67,200,000 MOU per month (336 DS-1s x 200,000 MOU) for 3 consecutive months to a tandem serving area separate from its existing POI arrangement. So, under the current standard, a CLEC could have slightly under an OC-12's worth of traffic at each of the 13 AT&T Illinois tandems in LATA 358 – but still would not be required to establish a second POI.

Q. DO YOU HAVE EVIDENCE TO WARRANT A RE-EXAMINATION OF THE OC-12 THRESHOLD BY THE COMMISSION?

A. Yes. After reading Dr. Liu's testimony I compiled traffic data for all section 251/252 interconnections for CLEC and CMRS carriers. There are a total of 773 interconnections established pursuant to section 251/252 between AT&T Illinois and CLECs and CMRS carriers operating in Illinois. The data indicate that:

- 78.7% (608) have traffic volumes of less than one DS-3 per month;
- 21.3% (165) have traffic volumes that exceed one DS-3 per month;,
- 6.1% (47) have traffic volumes that exceed one OC-3 per month,
- 0.26% (2) have traffic volumes that exceed one OC-12 per month.

Q. SO THERE ARE ONLY TWO INTERCONNECTIONS IN AT&T ILLINOIS' TERRITORY THAT EXCEED AN OC-12 TRAFFIC THRESHOLD?

A. Correct. *****BEGIN CONFIDENTIAL**********
****
****
**********END CONFIDENTIAL*****

Q. BASED ON THE ABOVE DATA, WOULD AT&T ILLINOIS LIKE TO MODIFY ITS TRAFFIC THRESHOLD PROPOSAL?

A. Yes. AT&T Illinois now proposes to increase the traffic threshold for establishing a new POI from 24 DS-1s to 28 DS-1s (*i.e.*, a DS-3). A DS-3 threshold would be easier to determine and manage.

Q. IN LIGHT OF THE DATA YOU HAVE PRESENTED, WHY IS IT REASONABLE FOR THE COMMISSION TO LOWER ITS THRESHOLD FROM OC-12 TO A DS-3?

A. The data show that the OC-12 threshold is too high. LATA 358 is densely populated and traffic volumes here are among the highest in the country. Yet, as the data show, only two of the 773 interconnections have more than an OC-12 traffic level - so having an OC-12 traffic threshold is very close to having no traffic threshold at all. In order to have a meaningful threshold, it should be lower. Keep in mind that we are dealing with traffic volumes within a tandem serving area. Under the current OC-12 threshold, a carrier could have slightly less than an OC-12 traffic volume in each of AT&T Illinois' 13 tandem serving areas in LATA 358 and still not trigger any requirement to establish another POI.

Q. WHY IS A DS-3 THE APPROPRIATE THRESHOLD?

A. A single DS-3 carries a large amount of traffic. There are 28 DS-1s in a single DS-3, so a DS-3 can carry up to 5,600,000 MOU per month (28 DS-1s x 200,000 MOU). At that level of traffic to a tandem serving area separate from the existing POI arrangement, it is reasonable for a carrier to establish an additional POI for its interconnection traffic for

network reliability in the event of a network failure at the original POI. Moreover, my DS-3 proposal is reasonable because it only gets triggered if traffic between AT&T Illinois and a carrier reaches 5,600,000 MOU per month to a tandem serving area separate from the existing POI for three consecutive months. This ensures that an additional POI is established only where there is a continued, sustained exchange of large amounts of traffic between carriers.

Q. WOULD ALL CARRIERS BE AFFECTED BY A DS-3 THRESHOLD?

A. No, and this is another reason why it is an appropriate threshold. The data shows that 78.7% of the interconnections have traffic levels that are under a DS-3 threshold. Stated differently, only 21.3% of the current interconnections would meet the DS-3 traffic threshold I propose.

And, when the Chicago LATA (LATA 358) is not considered, the percentages change further to reflect that even fewer interconnections would be affected. Outside LATA 358:

- 83.5% of all interconnections have traffic volumes of less than one DS-3 per month;
- 16.5% of all interconnections have traffic volumes that exceed one DS-3 per month;
- 4.7% of all interconnections have traffic volumes that exceed one OC-3 per month; and
- 0.0% of all interconnections have traffic volumes that exceed one OC-12 per month.

Q. WHAT IS YOUR OBJECTION TO AN OC-3 THRESHOLD?

A. An OC-3 is three DS-3s – so that type of connection can carry 16,800,000 MOU per month (84 DS-1s x 200,000 MOU). That is a very large volume of traffic and it would be an awfully high threshold, especially when applied separately to each tandem serving area. This is illustrated by the fact that only 6.1% of all interconnection statewide (and just 4.7% of the interconnections outside LATA 358) would be affected by an OC-3 traffic threshold.

Q. WHAT DOES SPRINT WITNESS MR. FELTON SAY REGARDING THE 90 DAY INTERVAL TO ESTABLISH AN ADDITIONAL POI?

A. Mr. Felton did not address this issue in his testimony. Dr. Liu agrees with the 90-day language as proposed by AT&T Illinois in Attachment 2, Section 2.2.1.3.3.[32]

Q. HOW SHOULD THE COMMISSION RESOLVE ISSUE 17?

A. I recommend that the Commission reduce the traffic threshold for establishing an additional POI from an OC-12 to a DS-3, provided that the traffic remains at a DS-3 level to a tandem serving area separate from the existing POI arrangement for three consecutive months. Without this adjustment, the OC-12 traffic threshold will effectively set single POI as the de facto threshold.

III. CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[32] Dr. Liu at page 34, lines 819-821.